

Please amend the application as follows.

IN THE CLAIMS

Please delete claims 4, 10, 11, 16-18, 20-23 and 27, without prejudice or disclaimer.

Please amend claims 2, 12, 19, 24, 26, 28, 48 and 50 to read as follows (pursuant to 37 C.F.R. § 1.121 a "marked up" version of the amended claims is enclosed as a separate document):

2. (4X Amended) A recombinant allergen according to claim 48, obtainable by

a) identifying amino acid residues in a naturally occurring allergen

originating from one of the taxonomic orders *Fagales, Hymenoptera or Dermatophagoides*

which are conserved with more than 70% identity in all of the known homologous proteins

within the taxonomic order from which said naturally occurring allergen originates;

b) defining at least one patch of conserved amino acid residues being

coherently connected over at least 400 Å<sup>2</sup> of the surface of the three-dimensional structure of the

naturally occurring allergen molecule as defined by having a solvent accessibility of at least

20%, said at least one patch comprising at least one B cell epitope; and

c) substituting at least one amino acid residue in said at least one patch with

another non-conservative amino acid, wherein the α-carbon backbone tertiary structure of the

allergen molecule is conserved.

12. (Twice Amended) A recombinant allergen according to claim 48, wherein

the allergen is derived from a pollen allergen originating from the taxonomic order of *Fagales*.

19. (Twice Amended) A recombinant allergen according to claim 48 , wherein

the allergen is derived from a mite inhalation allergen originating from *Dermatophagoides*.

*G 4* 24. (Twice Amended) A recombinant allergen according to claim 48 wherein the

allergen is derived from a venom allergen originating from the taxonomic order of *Hymenoptera*.

*G 5* 26. (3X Amended) A recombinant allergen according to claim 24, wherein the

allergen is derived from *Ves v 5*.

*G 6* 28. (4X Amended) A recombinant allergen according to claim 26, wherein said

allergen has one or more amino acid substitution is selected from the group consisting of

(i) Lys at position 72 of SEQ ID NO: 39 substituted with Ala; and

(ii) Tyr at position 96 of SEQ ID NO: 39 substituted with Ala.

*G 7* 48. (Twice Amended) A recombinant mutant allergen derived from a naturally

occurring allergen originating from one of the taxonomic orders *Fagales*, *Hymenoptera* or

*Dermatophagoides* in which at least one surface-exposed, amino acid residue of a B cell epitope

at a position which is conserved in the amino acid sequences of homologous proteins within the

taxonomic order from which the naturally occurring allergen originates, is substituted with an

amino acid residue which is not conserved in the same position in the amino acid sequences of

homologous proteins within the taxonomic order from which the naturally occurring allergen

originates, wherein the  $\alpha$ -carbon backbone tertiary structure of the recombinant allergen is

conserved as compared with the  $\alpha$ -carbon backbone tertiary structure of the naturally occurring

allergen, and specific IgE binding to the mutant allergen is reduced compared to the IgE binding

to the naturally occurring allergen.

*G 8* 50. (Twice Amended) A recombinant allergen according to claim 14 wherein

said allergen has one or more amino acid substitutions selected from the group consisting of:

(i) Thr at position 10 of SEQ ID NO: 37 substituted with Pro;

(ii) Asp at position 25 of SEQ ID NO: 37 substituted with Gly;

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Corr'd*

(iii) Asn at position 28 of SEQ ID NO: 37 substituted with Thr, and Lys at position 32 of SEQ ID NO: 37 substituted with Gln;

(iv) Glu at position 45 of SEQ ID NO: 37 substituted with Ser;

(v) Asn at position 47 of SEQ ID NO: 37 substituted with Ser;

(vi) Lys at position 55 of SEQ ID NO: 37 substituted with Asn;

(vii) Thr at position 77 of SEQ ID NO: 37 substituted with Ala;

(viii) Pro at position 108 of SEQ ID NO: 37 substituted with Gly; and

(ix) Asn at position 28 of SEQ ID NO: 37 substituted with Thr, Lys at position 32 of SEQ ID NO: 37 substituted with Gln, Glu at position 45 of SEQ ID NO: 37 substituted with Ser and Pro at position 108 of SEQ ID NO: 37 substituted with Gly.

#### REMARKS

**I. Claim Status.** Claims 4, 10, 11, 16-18, 20-23 and 27 have been deleted, without prejudice or disclaimer. Applicants specifically retain the right to pursue the subject matter of the deleted claims in one or more continuation or divisional application.

Claims 2, 12, 19, 24, 26, 28, 48 and 50 have been amended. Support for the amended claims is found in the specification as follows:

claims 2, 12, 19, 24 and 48-- page 15, lines 15-17, 25-27 and 28-32; and  
claim 26 -- page 16, lines 28-29.

Claim 28 has been amended for clarity and to add SEQ ID NO: for the recited mutations, but otherwise recites the subject matter as the previous version of the claim. Accordingly, no new matter has been added to the claim.

Claim 50 has been amended to correct an obvious editorial error.